

**WE CLAIM**

- Suba<sup>2</sup>
1. A method of inhibiting alkaline darkening of a mechanical pulp in the presence of a calcium carbonate filler comprising:  
providing an aqueous suspension of a mechanical pulp for producing paper,  
and  
incorporating in said suspension a calcium carbonate filler for producing paper with the pulp, and a sulphite.
  2. A method according to claim 1, wherein said sulphite is in an amount effective for inhibiting alkaline darkening.
  3. A method according to claim 1, wherein a pH of at least 6.5 is established in the aqueous suspension of said pulp, containing the calcium carbonate filler and sulphite.
  4. A method according to claim 3, wherein said sulphite is selected from alkali metal sulphites, alkali metal bisulphites and alkali metal metabisulphites.
  5. A method according to claim 4, wherein said sulphite is selected from sodium sulphite, sodium bisulphite and sodium metabisulphite.
  6. A method according to claim 5, wherein said pH is 6.5 to 9.
  7. A method according to claim 6, wherein said pH is 7 to 9.

FOOTNOTES

8. A method according to claim 6, wherein the pH is established by addition of a pH buffer or an acid.
9. A method according to claim 6, further including adding in chelating agent to the suspension.
10. A method according to claim 1, wherein said sulphite is incorporated in said suspension prior to incorporation of the calcium carbonate filler.
11. A method according to claim 1, wherein said sulphite is incorporated together with said calcium carbonate filler in said suspension.
12. A method according to claim 1, wherein the sulphite is incorporated in the suspension by addition at a latency chest, storage tank or machine chest during processing of the aqueous suspension to form paper.
- ~~13. A method of inhibiting alkaline darkening of a mechanical pulp in the presence of a calcium carbonate filler comprising:  
adding a calcium carbonate filler and a sulphur-containing reducing agent to an aqueous suspension of a mechanical pulp,  
said reducing agent being effective to reduce quinones to hydroquinones in a mechanical pulp.~~
14. A method according to claim 13, wherein said reducing agent is selected from sodium sulphite, sodium bisulphite, sodium metabisulphite, sodium hydrosulphite and formamidine sulfinic acid.

15. A method according to claim 14, wherein a pH of at least 6.5 is established in the aqueous suspensions of said pulp, containing the calcium carbonate filler and sulphite.
16. A method according to claim 15, wherein said pH is 6.5 to 9.
17. A method according to claim 16, wherein said pH is 7 to 9.
18. An aqueous paper manufacture suspension comprising:  
a mechanical pulp, a calcium carbonate filler and a sulphite in an aqueous vehicle, said suspension having a pH of at least 6.5, and said sulphite inhibiting alkaline darkening of said mechanical pulp.
19. A suspension according to claim 18, wherein said pH is 7 to 9 and said sulphite is selected from alkali metal sulphite, alkali metal bisulphite and alkali metal metabisulphite.

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